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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,402	12/07/2000	Jun Kametani	P/2291-94	9886

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EXAMINER	
TSEGAYE, SABA	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/732,402	KAMETANI, JUN	
	Examiner	Art Unit	
	Saba Tsegaye	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10-24* is/are allowed.

6)☒ Claim(s) *1,3-7 and 9* is/are rejected.

7)☒ Claim(s) *2 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the amendments filed on 07/29/05. Claims 1-24 are pending. Claims 10-24 are allowed. Claims 1, 3-7 and 9 are rejected and claims 2 and 8 are objected.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

3. Claims 1, 3-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (US 6,553,031 B1) in view of Naka (JP 403225412A).

Regarding claims 1, 4 and 5, Nakamura discloses, in Figs. 1 and 5, a microprocessor (a processor 17, 51) a routing table (55) for storing a plurality of next hop addresses (column 5, lines 17-28; column 7, lines 1-14); and a cache memory (sub routing table15) storing an IP flow table for storing at least one next-hop address which has been selected from the routing table (column 7, lines 1-14).

However, Nakamura does not expressly disclose an address pointer table for storing location information indicating an entry address of each next-hop address stored in the IP flow table (cache memory) and relationship information among entry addresses of next-hop address stored in the IP flow table.

Naka teaches that the presence of file data on a data storage position control file 22 indicating the leading storage position is recorded as an address pointer in the table 21 (claimed address pointer table). Naka, further, teaches that a target storage position record is accessed by using the pointer to extract a file data, then a data read means 24 reads the target file data out of storage positions of a specified storage devices based on the information from the data position setting means 23 (claimed relationship information among entry addresses of next-hop address stored in the IP flow table).

It would have been obvious to one ordinary skill in the art at the time the invention was made to add an address pointer table, such as that suggested by Naka, in the apparatus of Nakamura in order to accelerate the routing processing. One of ordinary skill in the art would have been motivated to do this so the constitution of tables can be simplified and in order to improve processing speed in the data processing system.

Regarding claim 3, Nakamura discloses, in fig. 8, the data searching system further comprising:

a controller (processor 17) controlling such that the IP flow table is searched for a desired next-hop address before the routing table and if a hit is found in the IP flow table, then a found next-hop address is used as a search result, and if no hit is found in the IP flow table, then the routing table is searched for the desired next-hop address and a found piece of data is used as a search result and is registered into the IP flow table, wherein a next-hop address with low retrieved frequency is deleted from the IP flow table according to a predetermined condition and

all linked memory blocks related to the deleted piece of data are released into available memory blocks (column 8, line 32-column 9, line 38).

Regarding claims 6 and 7, Nakamura in view of Naka does not expressly discloses wherein the address pointer table is provided in a main memory of the microprocessor or in the cache memory.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a system that provides the address pointer table in the cache memory or in the main memory to the system of Nakamura in view of Naka. One would motivated to do this because it would streamline the setup, thus making the system more compact and reducing the number of components needed to make the system.

Regarding claim 9, Nakamura discloses, in Figs. 1 and 5, a microprocessor (a processor 17, 51) a routing table (55) for storing a plurality of next hop addresses (column 5, lines 17-28; column 7, lines 1-14); and a cache memory (sub routing table15) storing an IP flow table for storing at least one next-hop address which has been selected from the routing table (column 7, lines 1-14). Further, Nakamura discloses, in Fig 8, a flowchart that shows a sub routing table update routine executed by a processor 17.

Nakamura, further, discloses that updating the cache memory provides unnecessary routing information entries are eliminated and it is easy to additionally register new entries in the sub routing table (cache memory).

However, Nakamura does not expressly disclose an address pointer table for storing location information indicating an entry address of data stored in search table (cache memory).

Naka teaches that the presence of file data on a data storage position control file 22 indicating the leading storage position is recorded as an address pointer in the table 21 (claimed address pointer table), so using the pointer accesses a target storage position record.

It would have been obvious to one ordinary skill in the art at the time the invention was made to add an address pointer table, such as that suggested by Naka, in the apparatus of Nakamura in order to accelerate the routing processing. One of ordinary skill in the art would have been motivated to do this so the constitution of tables can be simplified and in order to improve processing speed on the whole.

Allowable Subject Matter

4. Claims 2 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 10-24 are allowed.

Response to Arguments

6. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST
September 28, 2005

JOHN PEZZLO
PRIMARY EXAMINER